

Attorney's Docket No.: 10559-580001 / P11134

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Adam T. Lake et al.

Art Unit : 2672

Serial No.: 09/982,475

Examiner: Gregory F. Cunningham

: October 17, 2001 Filed

: GENERATING A SHADOW FOR A THREE-DIMENSIONAL MODEL Title

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Consideration of the references listed on the attached form PTO-1449 is respectfully requested. Paper copies of non-U.S. patent references are being supplied.

This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. Please apply the \$180 late submission fee of C.F.R. § 1.17(p) and any other charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 10559-580001.

Respectfully submitted,

Reg. No. 40,780

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Substitute Form PTO-1449

U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. Application No. 10559-580001 09/982,475

Applicant

प्रिश्तिकार by Applicant (Use several sheets if necessary)

Adam T. Lake et al.

Filing Date
October 17, 2001

Group Art Unit 2672

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Examine	Desig.	Document	Publication	Detantas	Class	Cubalass	Filing Date
r Initial	ID	Number 4,600,919	Date 07-1986	Patentee Stern	Class	Subclass	If Appropriate
	AA						
	AB	4,747,052	05-1988	Hishinuma et al.			
	AC	4,835,712	05-1989	Drebin et al.			
	AD	4,855,934	08-1989	Robinson		-	
<del>-</del>	AE	4,901,064	02-1990	Deering			
	AF	5,124,914	06-1992	Grangeat			
	AG	5,163,126	11-1992	Einkauf et al.			
	AH	5,371,778	12-1994	Yanof et al.			
	AI	5,611,030	03-1997	Stokes			
	AJ	5,731,819	03-1998	Gagne et al.			
,	AK	5,757,321	05-1998	Billyard		_ 10	
	AL	5,786,822	07-1998	Sakaibara			
	AM	5,805,782	09-1998	Foran			
	AN	5,809,219	09-1998	Pearce et al.			
	AO	5,812,141	09-1998	Kamen et al.			
	AP	5,847,712	12-1998	Salesin et al.			
	AQ	5,894,308	04-1999	Isaacs	"		
	AR	5,929,860	07-1999	Норре			
	AS	5,933,148	08-1999	Oka et al.			
	AT	5,949,969	09-1999	Suzuoki et al.			
	AU	5,966,133	10-1999	Норре			
	AV	5,966,134	10-1999	Arias			
	AW	5,974,423	10-1999	Margolin			
	AX	6,054,999	04-2000	Strandberg			
	AY	6,057,859	05-2000	Handelman et al.			
	AZ	6,078,331	06-2000	Pulli et al.	1		
	AAA	6,115,050	09-2000	Landau et al.			
			_l	L			1

Examiner Signature	Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. Apr 10559-580001 09

Application No. 09/982,475

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Applicant Adam T. Lake et al.

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U.S. Patent Documents							
Examine	Desig.	Document	Publication	8.4	Olasa	Cubalasa	Filing Date
r Initial	ID	Number	Date	Patentee	Class	Subclass	If Appropriate
	ABB	6,175,655	01-2001	George et al.			
	ACC	6,191,787	02-2001	Lu et al.			
	ADD	6,191,796	02-2001	Tarr			
	AEE	6,198,486	03-2001	Junkins et al.			
	AFF	6,201,549	05-2001	Bronskill			
	AGG	6,208,347	03-2001	Migdal et al.			
	АНН	6,219,070	04-2001	Baker et al.			
	AII	6,239,808	05-2001	Kirk et al.			
	AJJ	6,252,608	06-2001	Snyder et al.			
	AKK	6,262,737	07-2001	Li et al.			
	ALL	6,262,739	07-2001	Migdal et al.			
	AMM	6,292,192	09-2001	Moreton			
	ANN	6,317,125	11-2001	Persson			
	AOO	6,337,880	01-2002	Cornog et al.			
	APP	6,388,670	05-2002	Naka et al.			
	AQQ	6,405,071	06-2002	Analoui			
-	ARR	6,437,782	08-2002	Pieragostini et al.			
	ASS	6,478,680	11-2002	Yoshioka et al.			
	ATT	6,559,848	05-2003	O'Rourke			
	AUU	6,593,924	07-2003	Lake et al.			
	AVV	6,593,927	07-2003	Horowitz et al.			
	AWW	6,608,627	08-2003	Marshall et al.			
	AXX	6,608,628	08-2003	Ross et al.			
	AYY	2001/0026278	10-2001	Arai et al.			
	AZZ	2002/0101421	08-2002	Pallister			

Foreign Patent Documents or Published Foreign Patent Applications							
Examiner	Desig.	Document	Publication	Country or	Class	Subclass	Translation

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Substitute Disclosure Form (PTO-1449)

/	Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office					
	Impormation Disclosure Statement by Applicant		Applicant Adam T. Lake et al.				
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•	TRADENA				Yes	No	
	AAAA						
	ABBB						

(	Other Do	ocuments (include Author, Title, Date, and Place of Publication)
Examiner Initial	Desig. ID	Document
	ACCC	Appel, Arthur, "The Notion of Quantitative Invisibility and the Machine Rendering of Solids."  Proceedings of 22nd National Conference Association for Computing Machinery 1967.
	ADDD	Buck et al., "Performance-Driven Hand Drawn Animation", ACM (NPAR2000), pgs. 101 - 108 (2000).
	AEEE	Catmull et al., "Recursively Generated B-Spline Surfaces on Arbitrary Topological Meshes," Computer Aided Design, 10(6):350 - 355 (1978).
	AFFF	Coelho et al., "An Algorithm for Intersecting and Trimming Parametric Meshes", ACM SIGGRAPH, pgs. 1 - 8 (1998).
,	AGGG	Deering, M., "Geometry Compression," Computer Graphics. SIGGRAPH '95, pages 13-20, 1995.
	АННН	DeRose et al., "Subdivisional Surfaces in Character Animation", ACM, SIGGRAPH'98, pgs. 85 - 94 (1998).
	AIII	Dyn, N. et al., "A Butterfly Subdivision Scheme for Surface Interpolation with Tension Control," ACM Transactions on Graphics, 9(2):160 - 169 (1990).
	AJJJ	Elber, Gershon, "Interactive Line Art Rendering of Freeform Surfaces", Eurographics'99, 18(3):C1 - C12 (1999).
	AKKK	Gooch et al., "A Non-Photorealistic Lighting Model for Automatic Technical Illustration," Computer Graphics Proceedings, Annual Conference Series, SIGGRAPH'98, pgs. 447-452 (1998).
	ALLL	Gooch et al., "Interactive Technical Illustration," ACM Interactive 3D, pgs. 31 - 38 (1999).
	AMMM	Heidrich et al., "Realistic, Hardware-Accelerated Shading and Lighting," ACM, (SIGGRAPH'99), pgs. 171 - 178 (1999).
	ANNN	Hoppe, H., "Progressive Meshes," URL: http://www.research.microsft.com/research/graphics/hoppe/, (10 pgs.).
	A000	Kumar et al., "Interactive Display of Large Scale NURBS Models", ACM, Symp. On Interactive 3D Graphics, pgs. 51 - 58 (1995).
	APPP	Lake et al., "Stylized Rendering Techniques for Scalable Real-Time 3D Animation", NPAR, pgs. 101 - 108 (2000).
	AQQQ	Lander, Jeff, "Making Kine More Flexible," Game Developer Magazine, 5 pgs., November 1998.
	ARRR	Lander, Jeff, "Skin Them Bones," Game Developer Magazine, 4 pgs., May 1998.
	ASSS	Lee, M. et al., "Navigating Through Triangle Meshes Implemented as Linear Quadtrees," ACM Transactions on Graphics, 19(2):79 - 121 (2000).
	ATTT	Pedersen, "A Framework for Interactive Texturing on Curved Surfaces", ACM, pgs. 295 - 301 (1996).
	AUUU	"pmG Introduces Messiah: Animate 3.0", URL: http://www.digitalproducer.com/aHTM/Articles/july_2000/july_17_00/pmg_intros_messiah_animate.htm (Accessed 10/26/2004) 2 pgs.

Examiner Signature	Date Considered
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EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Attomey's Docket No. 10559-580001	Application No. 09/982,475	
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	Information Discleton Discharge Several sheet	Information Disclosure Statement by Applicant Use several sheets if necessary)	Patent and Trademark Office  10559-580001  Information Disclosure Statement by Applicant  AN 0 7 2005 © Use several sheets if necessary)  Filing Date	Patent and Trademark Office  10559-580001  10559-580001  Applicant  AN 0 7 2005 Carry Date (Use several sheets if necessary)  Patent and Trademark Office  10559-580001  Applicant  Adam T. Lake et al.

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	Other Documents (include Author, Title, Date, and Place of Publication)					
Examiner	Desig.					
Initial	l ID	Document				
==.	AVVV	Pueyo, X. et al., "Rendering Techniques '96," Proc. of Eurographics Rendering Workshop 1996,				
	AVVV	EUROGRAPHICS, p[gs. 61 - 70 (1996).				
	AWWW	"Rockwood, A. et al., ""Real-time Rendering of Trimmed Surfaces,"" Computer Graphics				
	Awww	(SIGGRAPH '89 Proceedings) 23:107 - 116 (1989).				
		Samet, Hanan, "Applications of Spatial Data Structures: Computer Graphics, Image Processing, and				
	AXXX	GIS," University of Maryland, Addison-Wesley Publishing Company, 1060-1064, Reading, MA,				
		June 1990				
	AYYY	Sousa, M., et al., "Computer-Generated Graphite Pencil Rendering of 3-D Polygonal Models",				
	Alli	Eurographics'99, 18(3):C195 - C207 (1999).				
	AZZZ	Stam, J., "Exact Evaluation of Catmull-Clark Subdivision Surfaces at Arbitrary Parameter Values",				
	AZZZ	SIGGRAPH 98 Conference Proceedings, Annual Conference Series, pgs. 395-404 (1998).				
	AAAAA	Taubin et al., "3D Geometry Compression", SIGGRAPH'98 Course Notes (1998).				
		Taubili et al., 3D Geometry Compression, Siggical 1178 Course (1978).				
	ABBBB	Zorin "Interpolation Subdivision for Meshes With Arbitrary Topology" Department of Computer				
		Science, California Institute of Technology, Pasadena, CA				

Examiner Signature	Date Considered
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